

REMARKS

Paragraph 3 on page 2 of the Office Action correctly states that claims 43 to 58 and 60 to 74 are pending and under consideration in the present application. Claim 59 was withdrawn from consideration. This is correct because claims 22 to 42 were canceled in amendment filed on February 6, 2003. Note that paragraphs 5 to 8 incorrectly include claim 42 in the lists of claims rejected, although it has already been canceled.

I. Species Election

The Examiner has withdrawn dependent claim 59 from consideration.

Applicants request reinstatement of dependent claim 59 and inclusion of claim 59 in any patent that issues on the above-identified U.S. Patent Application containing a generic claim on which claim 59 depends, because it is respectfully submitted that the broader preparation claims should be allowed because of the *common distinguishing technical features* in them, namely the undissolved water-swollen particles of superabsorbing polymer.

The present application is the U.S. National Stage of PCT/EP 01/04024 and thus restriction and election requirements must be based on "unity of invention" principles, in accordance with PCT Rule 13.2. For example see M.P.E.P. 1893.03 (e) and appendix regarding the principles of unity of invention. Thus all that is required for unity of invention is the *common distinguishing features* in all claims. If a generic claim is found to be allowable containing the

common distinguishing features, namely the undissolved water-swollen particles of superabsorbing polymer, and dependent claim 59 depends on it, the allowance and issue of a patent containing dependent claim 59 as well as the generic claim is respectfully request.

II. Indefiniteness Rejection

Claims 43 to 47, 49 to 58 and 60 to 75 were rejected under 35 U.S.C. 112, second paragraph, for indefiniteness.

These claims were rejected because they included the term "superabsorbing polymer". The reasoning on page 3 of the Office Action contends that the term "superabsorbing polymer" is a relative term, because the term "superabsorbing" merely indicates that the "superabsorbing polymer" absorbs a much larger quantity of the absorbed material than an "absorbing polymer". However that is not the only property that distinguishes a "superabsorbing polymer" from an "absorbing polymer". It is respectfully submitted that one skilled in the art would be able to accurately determine the scope of the pending claims containing this term and that the present claims are sufficiently definite to satisfy 35 U.S.C. 112, second paragraph.

The "superabsorbing polymer" is well known, because it is used in other arts besides the cosmetic arts. For example superabsorbing polymers are used for making diapers. The prior art provides a definite definition for the term "superabsorbing polymer" that clearly distinguishes "superabsorbing polymer" from "absorbing polymer" or "non-superabsorbing polymer". A copy "Ullmann's

Encyclopedia of Industrial Chemistry", J. Wiley Verlag GmbH, 2002, which contains this definition, is enclosed together with an IDS. This copy of the definition was obtained from the Internet (the definition and description of the term "superabsorbents" were posted on the Internet on January 15, 2003). The first paragraph on the first page of the definition states that the term "superabsorbent polymer (SAP) is equivalent to the term "superabsorbent".

According to Ullmann's Encyclopedia of Industrial Chemistry, a superabsorbing polymer is defined as:

- 1) capable of absorbing large quantities of aqueous liquids spontaneously and rapidly,
- 2) strongly retaining the absorbed aqueous fluids and not releasing the absorbed liquids mechanically, and
- 3) essentially keeping the original particle shape and changing only in dimensions and rheological behavior while swelling. The main difference of (other) absorbing materials from superabsorbents is that they release most of the liquid under mechanical pressure.

Superabsorbents are unique in that the absorbed liquid cannot be released mechanically or only with great difficulty. See the second paragraph on the first page of the definition. This latter fact is the basis for accurately distinguishing between superabsorbing polymers and absorbing polymers. In contrast, absorbed water can be released mechanically from absorbing polymers comparatively easily, because it is physically absorbed by filling open spaces in a porous material or by diffusion into the polymeric material. In contrast,

superabsorbing polymers absorb aqueous liquids chemically. Particles of superabsorbing polymers swell irreversibly in an aqueous liquid (note the use of the term "swollen particles" in claim 43) so that release of water once it is absorbed by the superabsorbing polymer particles is not simply a matter of degree in comparison to a similar release from an absorbing polymer, but a difference in kind.

In view of the foregoing it is respectfully submitted that one skilled in the chemical arts would know, or be able to find out from the literature, which polymers are superabsorbing and which polymers are merely absorbing. M.P.E.P. 2173.05 (b) clearly states that if one skilled in the art would be *reasonably* apprised of the scope of the invention from a term (such as "superabsorbing polymer") then the term is acceptable in a claim under 35 U.S.C. 112, second paragraph, even if it is a relative term. This term is analogous to terms such as "volatile" and "non-volatile", which are often used in chemical claims and are acceptable under 35 U.S.C. 112, second paragraph, even though it is well known almost all materials have a vapor pressure and thus can be volatilized. See for example Ex parte Moss, 20 U.S. P.Q. 102 regarding these latter terms.

Generally chemical terminology differs from mathematical terminology or terminology used in physics, because chemical terms do not have mathematical precision. An example is given above: volatile and non-volatile. The test is always whether or not the scope of the term would be well defined for one of ordinary skill in the art; i.e. the chemical arts.

In addition the term "superabsorbing polymer" appears in the claims of issued U.S. Patents, which have been found to comply with 35 U.S.C. 112, second paragraph. An example is claim 7 in column 14 of U.S. patent 6,358,493, which was cited in the examination of the above-identified U.S. Patent Application.

For the foregoing reasons withdrawal of the rejection of claims 43 to 47, 49 to 58 and 60 to 75 under 35 U.S.C. 112, second paragraph, for indefiniteness is respectfully requested.

III. Anticipation of claims 43-58 under 35 U.S.C. 102(e)

by U.S. Patent 6,358,493

Claims 43-58 cannot be rejected as anticipated under 35 U.S.C. 102 (e) by U.S. Patent 6,358,493 because the priority date of claims 43-58 is April 19, 2000, based on the filing date of 100 19 314.5 in Germany (see the Declaration filed with the application papers), which is earlier than June 8, 2000, the filing date of this U.S. Patent 6,358,493.

IV. Anticipation of claims 43-47, 49-51, 57-58 under 35 U.S.C. 102 (a) by

WO 01/03658

Preparation claims 43 to 47, 49 to 51 and 57 to 58 were rejected as anticipated under 35 U.S.C. 102 (a) based on the disclosures in WO 01/03658.

Claim 43 is the only independent preparation claim and claims a cosmetic preparation consisting of a gel, which comprises (a) undissolved (b) water-swollen particles of (c) at least one superabsorbing polymer. Note that there are three distinct distinguishing features of this claim, namely (a), (b) and (c), not only the superabsorbing feature (c).

WO 01/03658 describes hair care compositions containing a specific cross-linked copolymer. This copolymer forms cationic microgels and is capable of adsorbing large amounts of water. Claim 1 claims a cationic microgel consisting essentially of VP and DMAPMA. In other words, the claims claim a microgel consisting essentially of this particular absorbing copolymer.

However the microgel-forming cationic copolymers of WO 01/03658 are not superabsorbing polymers. An adsorbing polymer is distinct and different from a superabsorbing polymer, as explained above in connection with the rejection under 35 U.S.C. 112, second paragraph. The term "adsorbing substrate" means a substrate, which can (reversibly) bind the absorbed substance to its surface and/or within its body. The term "superabsorbing substrate" means (as defined above) a substance, which strongly retains (chemically binds) the absorbed substance, but does not release it mechanically.

Furthermore, WO 01/03658 does not disclose cosmetic preparations containing water-swollen undissolved particles. Example 2 of this reference is an aqueous solution containing the copolymer, i.e. the copolymer is dissolved in water. The only explicit cosmetic preparation is Example 5. The instructions on page 13 of WO 01/03658 explicitly teach making a homogeneous solution of Part

B, which contains the cross-linked copolymer as conditioning additive. A homogeneous solution does not contain undissolved particles.

It is well established that a prior art reference used to reject a claimed invention as anticipated under 35 U.S.C. 102 (a) must disclose each and every element of the claimed invention, either expressly or inherently, for the anticipation rejection to be valid.

In the case of the instant invention the reference teaches neither the superabsorbing polymer ingredient nor the undissolved water-swollen particles of claim 43.

Therefore, withdrawal of the rejection of claims 43-47, 49-51 and 57-58 as anticipated under 35 U.S.C. 102 (a) by WO 01/03658 is respectfully requested.

V. Anticipation of claims 43-47, 49-53, 57-58 under 35 U.S.C.102 (b)
by WO 92/07011

Preparation claims 43 to 47, 49 to 53 and 57 to 58 were rejected as anticipated under 35 U.S.C. 102 (b) based on the disclosures in WO 92/07011.

Claim 43 is the only independent preparation claim and claims a cosmetic preparation consisting of a gel, which comprises (a) undissolved (b) water-swollen particles of (c) at least one superabsorbing polymer. Note that there are three distinct distinguishing features of this claim, namely (a), (b) and (c), not only the superabsorbing feature (c).

WO 92/0701 1 teaches a specific swellable, cross-linked polyvinyl pyrrolidone and cosmetic compositions containing them. For incorporating this polymer in the cosmetic compositions, the polymer is dissolved in a solvent such as water to provide a homogeneous composition (see page 12, lines 1 - 6).

It is an explicit object of the invention of WO 92/07011 to provide a polymer, which forms clear solutions (page 5, line 4 from the bottom). A clear solution does not contain undissolved particles. The reference does not teach or suggest any composition or preparation containing undissolved particles, i.e. feature (a) of claim 43.

Furthermore the reference does not teach or suggest feature labeled (b) in claim 43. The term "swellable" as used in WO 92/07011 does not relate to swollen undissolved particles, but to the swelling of the total gel composition containing dissolved polymer (see the measurement instructions for determining the swelling properties of the gel in page 7, third paragraph). A measured amount of polymer is dissolved in water, allowed to stand and the volume of the resulting gel after several days is measured. Thus "swelling" refers to the increase in volume of the entire water phase after gelling. It does not refer to the increase in volume of individual insoluble particles of the polymer or copolymer.

Furthermore the cross-linked PVP polymers or VP polymers of this reference are no superabsorbing polymers (feature labeled c).

For the foregoing reasons withdrawal of the rejection of preparation claims 43-47, 49-53 and 57-58 as anticipated under 35 U.S.C. 102 (b) by WO 92/07011 is respectfully requested.

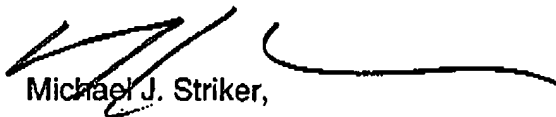
VI. Method Claims 60 to 75

Furthermore allowance of the method claims 60 to 75 is respectfully requested since their indefiniteness rejection should be withdrawn and these claims have not been rejected over any prior art reference.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in formal respects to put this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,



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